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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,021	09/11/2002	Artur Kurz	P6786.7US	7556
30008	7590	03/21/2005	EXAMINER	
GUDRUN E. HUCKETT DRAUDT LONSSTR. 53 WUPPERTAL, 42289 GERMANY			CADUGAN, ERICA E	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

57

Office Action Summary	Application No. 10/065,021	Applicant(s) KURZ ET AL.	
	Examiner Erica E Cadugan	Art Unit 3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2004 and 11 September 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/13/04</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413).
Paper No(s)/Mail Date. _____
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____. |
|--|--|

DETAILED ACTION

Drawings

1. The drawing amendment filed December 14, 2004, specifically new Figure 2, is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: new Figure 2 shows the two spindles working on the same workpiece. It is noted that the workpiece is shown on a single worktable 22. The specification as originally filed does not support the showing of the workpiece mounted on a single worktable. Note that it is not inherent that simultaneous machining of a single workpiece by both spindles requires a single worktable since the workpiece could, for example, be large enough to span both of the work tables 22 shown in Figure 1. (Examiner notes that the specification as originally filed would also not support showing the single workpiece spanning both tables since the specification as originally filed does not teach such, nor is it inherent that such is occurring since that is not the only way that such simultaneous machining of the same workpiece by both spindles could occur.)

Applicant is required to cancel the new matter in the reply to this Office Action. It is noted that upon cancellation of Figure 2, it would appear that Figure 3 should be renumbered as Figure 2, and any references to the present Figure 2 in the specification should be deleted, and any references to the present Figure 3 in the specification should be amended to reflect Figure 3's change to "Figure 2".

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embodiment wherein the first and

Art Unit: 3722

second spindles both perform machining on "one workpiece" as set forth in claims 5, 7, 13, and 15, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. (It is noted that the specification references DE 19503482 in paragraph 0005, not cited. Note that this is permissible, but Examiner notes that unless the reference is cited, it has not been considered.)

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described

Art Unit: 3722

in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, claim 17 sets forth a method including the steps of “continuing workpiece machining by the second spindle, including accessing the second tool magazine, during stocking of the first tool magazine; and continuing workpiece machining by the first spindle, including accessing the first tool magazine, during stocking of the second tool magazine”. These steps do not appear to have support in the specification as originally filed.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 2, and claim 9, line 2 each set forth the limitation “the device”. As amended, this limitation lacks sufficient antecedent basis in the claims.

Claim 17 sets forth the steps of “continuing workpiece machining by the second spindle, including accessing the second tool magazine, during stocking of the first tool magazine; and continuing workpiece machining by the first spindle, including accessing the first tool magazine, during stocking of the second tool magazine”. The meaning of these limitations is unclear. For example, it is unclear in what manner or regard the machining “includes accessing” as claimed.

Claim Rejections - 35 USC § 102

8. Claims 1-3, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. pat. No. 5,971,904 to Soltermann et al. ('904).

Art Unit: 3722

'904 teaches a machining device or "machining tool" including plural work stations 7, each station including a tool spindle 13 (Figure 1, Figure 3, and col. 1, lines 38-55 and col. 3, lines 55-60, for example). Note that '904 describes a large tool magazine 21 that includes a plurality of smaller tool supports 31, each support 31 carrying at least two tools (col. 4, lines 1-10), and thus each smaller support 31 being considered itself a "magazine" as broadly claimed. Thus, '904 teaches at least first and second magazines 31 (see Figure 4, for example, see also col. 6, lines 19-30, for example).

It is noted that '904 explicitly teaches that the exchanging of bars 31 and thus the tools therein, i.e., "stocking" as broadly claimed, occurs at an operator interface 22 during machining operations (col. 6, lines 49-53, for example).

Regarding claim 3, note that the bars 31 mounted on the large magazine 21 are moved to the interface 22 for the aforescribed exchange (col. 6, lines 49-53).

9. Claims 1, 3, and 17, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by JP-6-304835 ('835).

'835 teaches a "machine tool" having a base 12 (see Figures 1-2). The "machine tool" includes spindles 48 and 48a (see Figure 2) that are independently moveable in at least one axis, such as in the vertical direction by virtue of their separate vertical drives (including the ball screw drives, one of which that has a ball screw labeled "46(44) in Figure 2), and such as in the direction labeled as "Z" in Figures 1 and 3, by virtue of the separate ball screw drives including ball screws 42 as shown in Figure 2, for example. Each spindle has its own "magazine" 64, 64a (see Figures 1-2, for example).

Art Unit: 3722

Note that “stocking” of the tool magazines 64, 64a is carried out adjacent tool swap devices 60 (see Figures 1-2, for example and also paragraph 0023), and that such “stocking” does not affect the machining operation carried out by the spindles (see Figures 1-2), particularly noting that a further exchange device 62, 62a is used to exchange tools between the tool magazines 64, 64a and their respective spindles 48, 48a (Figure 2, for example).

Specifically regarding claim 3, it is noted that the magazines 64, 64a must be indexed or “moved” into the appropriate position to be stocked, i.e., indexed to a position where the desired tools can be removed therefrom or attached thereto, as appropriate (see Figures 1-2).

Re claim 17, note that the “second” spindle 48 continues machining during stocking of the “first” magazine 64a by its respective tool swap device, and that, insofar as the language of claim 17 is understood, the “second tool magazine” 64 is also “accessed” by its respective tool swap device 60 during the machining operation carried out by the “second” spindle 48 (see Figures 1-2).

Claim Rejections - 35 USC § 103

10. Claims 1, 3, and 17 alternatively are, and claims 2 and 4-16 are, all as best understood, rejected under 35 U.S.C. 103(a) as being unpatentable over JP-6-304835 ('835) as applied to claims 1 and 3 above.

'835 teaches all aspects of the present invention as set forth in the above rejection based thereon.

Re claims 1, 3, and 17, in the alternative, it appears implicit via the discussion of “prompt” tool change and “processing effectiveness” in paragraphs 0002-0006, for example, and the provision of the independent magazines 64, 64a, the independent stockers 60, and the

Art Unit: 3722

independently moveable spindles 48, 48a, as described above, that the second spindle continues its machining, as desired, during stocking of the other magazine with one of the tool swap devices, and vice versa. However, '835 does not explicitly teach such.

Re claims 2 and 10, while teaches utilizing separate tool swap devices 60 to stock the tool magazines 64 and 64a as described above, '835 is silent as to how many operators are used to operate these tool swap devices.

Re claims 4-8 and 12-16, for example, '835 is silent about the specifics of the machining operations carried out, though it is noted that '835 teaches (see paragraphs 0007 and 0038, for example), and it would also be readily apparent from the provision of the tool exchanging system taught by '835 as well as the ability of the spindles to be moved independently, that the spindles can be utilized to perform a wide variety of machining operations in whatever order (i.e., simultaneous, alternating, etc.) as was desired by an end user. (Thus re claim 6, for example, it would depend on the operations desired to be performed by the end user as to whether the tools in the magazines were identical or not.).

Re claim 9, while '835 does explicitly teach the provision of the plural tool swap devices to stock the tool magazines as described above that would enable such an occurrence, '835 does not explicitly set forth that the stocking of the tool magazines 64 and 64a occurs "simultaneously" as claimed.

Re claim 11, it is noted that the magazines 64, 64a must be indexed or "moved" into the appropriate position to be stocked, i.e., indexed to a position where the desired tools can be removed therefrom or attached thereto, as appropriate (see Figures 1-2).

Art Unit: 3722

However, re claims 2 and 10, particularly absent any alleged criticality it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized as many machine tool operators as was desired or expedient to an end user, and particularly re claim 10, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Note that it completely depends on the design choice of the workpiece(s) produced and the operations that an end user desires the device to perform (noting that '835 explicitly teaches that a wide variety of different operations can be performed, and thus teaches the flexibility of the machine, see paragraphs 0007 and 0038-0040, for example) as to whether the magazines are stocked at the same time, whether the spindles are operated simultaneously or alternately, or whether or not one spindle happens to be operating at the time that the other magazine is being stocked. Note also that so long as the stocking of the magazine(s) occurs during the machining operation(s) as claimed (i.e., does not interfere with the machining operation(s)), it does not appear to matter to the present invention whether the machining is identical or different (see paragraphs 0004-0006 and 0026-0029 of the present specification).

Thus, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have conventionally performed parallel identical machining on separate workpieces with the separate spindles, or to have conventionally used the separate spindles to perform alternately on one workpiece because Applicant has not disclosed that performing such machining provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected '835's

Art Unit: 3722

invention of stocking the magazines during machining to perform equally well whether or not the machining is the same or different, whether or not the tools stocked in the different magazines are the same or different, or whether or not one spindle happens to be in the process of machining while the magazine of the opposite tool spindle is being "stocked" because the salient function of the stocking occurring during the machining is unchanged in the modification.

Therefore, it would have been an obvious matter of design choice to have modified the teachings of '835 to have obtained the invention as specified in the claims.

Response to Arguments

11. Applicant's arguments filed December 14, 2004 with respect to the Solterman reference have been fully considered but they are not persuasive.

12. Applicant's arguments with respect to the Azema reference have been considered but are moot in view of the new ground(s) of rejection.

13. With respect to the Solterman reference, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "where the tool exchange is to be carried out stands still during stocking of the correlated tool magazine or performs no machining on the workpiece" (the precise meaning of which is unclear), "stocking of the tool magazine 21 with the tool carriers 31 is only possible when the tool magazine stands still" or any language to preclude a reference having this feature, any language to define over Solterman related to Applicant's statement that "[a]ccording to the present invention, the spindles 12, 13 each have their own tool magazine 2, 3, respectively" -- note that as described in the above rejection based on Solterman, Solterman teaches plural spindles, and plural magazines, as claimed, and that the magazines are used with

Art Unit: 3722

the spindles and are thus “correlated” therewith, as broadly claimed, etc.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's arguments with the Solterman reference fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims (emphasis added) patentably distinguishes them from the references.

Additionally, Examiner will address any arguments made in the section dealing with the Azema reference to the extent that any such arguments still pertain.

Firstly, it is noted that Applicant asserts that “applicant would like to stress again that the present invention is not concerned with stocking a tool magazine while the working spindle machines a workpiece”. However, Examiner notes that such is precisely what is claimed, e.g., claim 1, lines 7-8 set forth “continuing workpiece machining by the second spindle during stocking of the first tool magazine” and lines 9-10 set forth “continuing workpiece machining by the first spindle during stocking of the second tool magazine”, i.e., stocking a tool magazine while the working spindle machines a workpiece.

The Azema rejection was withdrawn because it was based on the provision of two machine tools, each having a spindle, etc., and the amendment of 12/14/05 clarifies that the method utilizes “a machine tool” having “at least a first and a second spindle”, i.e., and thus the amendment overcomes the previous rejection.

Conclusion

Art Unit: 3722

14. Applicant's amendment as well as Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 12/13/04 necessitated/prompted the new ground(s) of rejection (note that JP 6-304835 is the document underlying the Japanese patent abstract cited by applicant in 12/04) presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

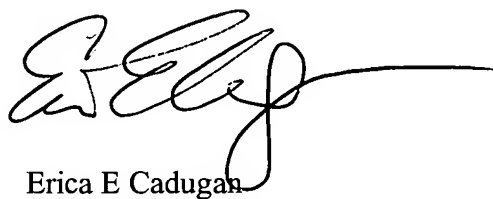
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 7:30 a.m. to 5:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris H. Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 3722

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Erica E Cadugan', with a long horizontal line extending to the right.

Erica E Cadugan
Primary Examiner
Art Unit 3722

eec

March 17, 2005